

Application No. 09/649,293
Attny Docket: COCH-0028-US1

Response To Action
dated June 28, 2005

REMARKS

1. In response to the final Office Action mailed June 28, 2005, Applicant respectfully requests reconsideration. Claims 29-52 were last presented for examination. In the Office Action, all the outstanding claims were rejected. By the foregoing Amendments, claims 29, 33, 34 and 37 have been amended. No claims have been canceled or added. Thus, upon entry of this paper, claims 29-52 will remain pending in this application. Of these 24 claims, three (3) claims (claims 29, 37 and 45) are independent.
2. Based on the above Amendments and following Remarks, Applicant respectfully requests that the outstanding objections and rejections be reconsidered, and that they be withdrawn.

Art of Record

3. Applicant acknowledge receipt of form PTO-892 provided as an attachment to the June 28, 2005 Office Action, listing additional references identified by the Examiner.

Examiner Interview

4. Applicant thanks the Examiner for the substantive interview conducted on June 13, 2006. The agreements reached in the above interview are set out in the following Remarks.

Claim Objections

5. Claims 37-44 have been objected because of an informality in claim 37. Claim 37 has been amended in accordance with the Examiner's suggestion thereby accommodating the objection. Withdrawal is respectfully requested.

Claim Rejections

6. All claims have been rejected Under 35 U.S.C. §102(a) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Fu and Shannon, "Effects of Electrode ... Implant" (hereinafter "Fu").

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7. Independent claim 29 has been amended to recite “[a]n elongate electrode array ... comprising electrodes fixedly positioned longitudinally along [its] length ... such that, for any electrode and all of said electrodes of said electrode array, ... wherein ... spaces between [all] adjacent electrodes change in a uniformly graduated manner along said length of said electrode array. (See, amended claim 29, above; emphasis added. As such, the claimed uniformly graduated spacing occurs between all electrodes of the claimed electrode array, not just the recited electrodes.

8. As discussed in the noted Examiner Interview, Fu fails to teach or suggest the claimed spacing between “any electrode and all of said electrodes of said electrode array” as recited in amended independent claim 29. Fu describes investigations that were conducted by the authors directed to the effects of location and spacing of electrodes on speech performance. In one experiment, Experiment III, seven different four-electrode processors were designed with uneven electrode spacing to simulate the effect of an irregular pattern of nerve activation. (See, page 323, col. 1.) Specifically, both electrode spacing and locations were adjusted to produce conditions ranging from equal tonotopical spacing (P6 of Fig. 1) to equal linear frequency intervals (P0 of Fig. 1). As shown in Fig. 1, none of the Experiment III conditions include uniformly graduated inter-electrode spacing. As noted in the caption of Fig. 1, all electrodes are 0.75mm apart. Furthermore, only certain electrodes are active at any given time; that is, there are non-active electrodes located between active electrodes. Such an alternating arrangement of active and non-active electrodes fails to meet the limitations of amended claim 29.

9. Nor is there any suggestion to test or implement such an arrangement. In fact, it appears that the reference teaches away from non-uniform spacing of electrodes. The discussion of the results of the experiments indicate that the non-uniform spacing experiment (Experiment III) yielded results which were not as encouraging as the experiments (Experiments I and II) in which different arrangements of uniform electrode spacing were explored.

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Dependent Claims

10. The dependent claims incorporate all of the subject matter of their respective independent claims and add additional subject matter which makes them a *fortiori* and independently patentable over the art of record. Accordingly, Applicant respectfully requests that the outstanding rejections of the dependent claims be reconsidered and withdrawn.

Conclusion

11. In view of the foregoing, this application should be in condition for allowance. A notice to this effect is respectfully requested.

Respectfully submitted,



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